



Harbinger

JANUARY and FEBRUARY 2010 VOL 24 NO 1

Conserving Energy—Wildlife Style

Surviving winter is all about conserving energy and staying warm. And while humans, the lucky ones at least, have some choice in where and how we spend the winter, animals are adapted for a *specific* strategy. Hibernation is one of the more fascinating methods animals use to survive winter.

While long, cold winter nights may provide the perfect excuse for humans to sleep longer, hibernation is much more complicated than sleep. Hibernation is like a state of suspended animation in which many physiological changes take place. This physiological state is called “torpor.” By comparison, sleep results primarily in a mental change with only minimal physiological change.

Staying warm requires energy from food. Winter, however, is a time of scarcity and without an adequate food supply to provide energy, many animals would perish. Hibernation is a good alternative. Sleep still requires energy to pump blood, to digest food, and to maintain body temperature. When animals are in torpor, however, energy is conserved as body temperatures plummet, in some cases even below freezing which in turn decreases breathing and heart rate.

For cold-blooded creatures, like amphibians and reptiles, that are unable to adjust their body temperature metabolically, hibernation is the only method for surviving winter. Some warm-blooded animals, including groundhogs, several species of bats, and others, also hibernate. Their body temperature will vary according to the temperature around them. If their body temperature drops too low, their metabolism will increase and burn off fat reserves to generate energy for body heat. Hibernating animals have a special fat called brown fat which creates heat through a chemical change, a much more effective method of producing heat compared to regular body fat.

Animals experience different levels of torpor. Some with shallow torpor, like bears, will occasionally awaken and arouse to move about. Others, like groundhogs, may remain in deep torpor for a period of months.

Surprisingly, there are risks associated with hibernation. Both federally endangered gray and Indiana bats use caves for hibernation. Bats do not feed during winter and are in a deep state of torpor. They rely entirely on stored fat to survive. When bats are disturbed during hibernation, they become aroused causing them to burn more energy. They can use up to 30 days of stored fat by these disturbances which increases mortality since fat supplies are limited. You can help bats by staying out of gated caves that protect these species during hibernation.

There are many species of birds, including the chickadee, that experience daily torpor during colder months. Their body temperature drops just a few degrees for a few hours nightly to conserve energy. Hummingbirds, with their extremely high metabolism, also experience torpor as temperatures drop in September and October before they migrate. On cold nights, their body temperature may drop as much as 20 degrees to conserve energy.

While cold winter temperatures may provide ample excuses for humans to eat and sleep more than usual, our bodies aren't adapted for hibernation. We'll stay active during the winter months and do our best to stay warm and to conserve energy. Migrating to a warmer climate, however, is always an option, at least for the lucky ones.

Hibernation is one of the more fascinating methods animals use to survive winter.



The View From The Bridge

Sustainability, conserving resources, and management are all common terms used in the field of conservation. They are also words commonly heard these days in reference to the downtrend in the economy. And as in nature, everything is connected—including conservation and the economy.

The Missouri Department of Conservation is funded primarily through a one eighth of 1 percent sales tax. This Design for Conservation sales tax, voted in by the citizens of Missouri, has provided approximately 60 percent of our funding since 1977. The other large source of funding comes from the sale of hunting and fishing permits while sales, leases, federal funding reimbursements, and other miscellaneous sources make up the remainder of the budget.

The reality is that sales tax revenues are down. During fiscal year 2009, the conservation sales tax revenue was down by 6.2 percent, or \$6.4 million, from the previous fiscal year. This is the largest 1 year decline in the conservation sales tax history and marks the first time ever for 2 consecutive years with negative sales tax growth.

Decisions were made by Conservation Department leadership, with input from staff, and have been approved by the Conservation Commission to reduce personnel costs from 55.4 percent to closer to 50 percent by the beginning of fiscal year 2011. This was done to avoid dramatic job cuts that other agencies and other states have recently experienced.

In all, 173 positions are being held vacant across all divisions as part of a vacancy management plan. In addition, the budget for hourly employees has been reduced, 13 facilities are being closed, many services have been reduced or eliminated, and the hours of operation at many Conservation Department facilities will be reduced. The Springfield Conservation Nature Center is being affected in most of these areas.

Rest assured that we are making every effort to maintain excellent public service, but we are burdened with the task of making it sustainable. While we still don't have a final plan approved by the printing of this newsletter, we will be making announcements soon about changes in the hours of operation. We are working to keep the area and trails open daily but the hours of operation will be reduced. The building will close 1½ to 2 days a week and the entire area will be closed on a number of state holidays.

Conservation is wise use of our resources, and right now our financial resources are limited. As always, your comments are welcome.


Linda F. Chorice
Nature Center Manager

The Springfield Conservation Nature Center is located in southeast Springfield just west of US-65 off the James River Freeway (US-60). The area is open daily 8am to 9pm from March 1 to October 31, and 8am to 6pm during the remainder of the year. The building is open daily from 8am to 5pm year 'round. The building and area are closed on Thanksgiving, Christmas, and New Year's Day. The area is closed to pets, bicycles, roller blades, hunting, fishing, collecting, and alcoholic beverages. No fees are charged.

Phone: 417/888-4237 Fax: 417/888-4241 <www.mdc.mo.gov/2360>

The Nature Nook Gift Shop

20% Off



2-disc set

Fiddles & Forests

Discounted price: **\$7.80** plus tax

Heritage card discount does not apply.

Thank You

We would like to thank Roy Kern and Brenda Cummings for donating natural objects, Kenneth Wheeler for pictures, Dr. Lynn Robbins for a book on bats he co-authored, and George Wait for a bat house.

Newsletter Online

Thanks to everyone who has registered to receive the newsletter online. If you'd like to start receiving your newsletter through the web, sign up at <www.mdc.mo.gov/2360>.

Temporary Display

January/February

Spring Is On The Way

Photography and Paintings by
Rosalie Perryman

Ask The Naturalist



Seasonal changes spark many questions. In this section, we answer some common questions about natural events.

Can I catch crappie in the winter?

Crappie can be found in deep water (20 to 40 feet) in the winter around shelter, such as brush piles, but they will move into shallower water during a series of warm days. They also tend to congregate in large, dense schools. One side of a brush pile may not have any fish while the other side may have many. The key to catching crappie in the winter is to use a very slow retrieve.

Is it true that once you start feeding birds in the winter you shouldn't stop because they will starve?

In most cases, the birds that are feeding in your backyard are also feeding at your neighbor's feeders and are eating natural food as well. There have been limited studies that suggest that backyard feeders do not create dependence on seed from feeders. Studies of chickadees show that even with seed available from feeders, they still get about 75 percent of their food from the wild.

When can I find deer antlers?

Bucks shed their antlers sometime in January or February, but they are not always easy to find. Rabbits, mice, and other rodents gnaw on the antlers for the minerals they contain. It doesn't take long for them to disappear.

Chipping In . . . Volunteer Naturalist

Fast Facts:

Volunteer Class of 2007

Hours Donated: 590 hours

Occupation: retired regional manager from Missouri Division of Aging

Education: B.S. in sociology from Missouri State University

Nature Center Activities: working the front desk, patrolling trails, and assisting with programs.

Rich Meier



I volunteer because: I enjoy being around people, and I like to give something back to all the people that have done something for me.

The most fulfilling part of working as a Volunteer Naturalist is: greeting people at the front desk and watching them smile as they enter the building, especially kids.

One thing most people don't know about me is: that I didn't see my daughter until she turned one year old, because I had shipped out to Vietnam when she was born.

When I was young, a natural experience that influenced me was: camping with my family. It was this exposure to the outdoors that sparked my curiosity about the natural environment. I particularly remember a camping trip at Alley Spring when my brother, sister, friends, and I were so eager to go swimming that we mistakenly swam in the cold spring water rather than swimming in the river just upstream. We didn't complain one bit for fear of having to get out of the water.

I am inspired by: people who take the time to listen and care for others.

One place where I have always wanted to go is: the Black Hills in the Dakotas because of all the history that I've read and heard about and all the natural beauty found there.

My favorite volunteer memory occurred: during a float trip with the Conservation TEEN Club. It was so much fun seeing young teenagers willing to learn and a thrill to be given the opportunity to teach them.

My favorite natural place to visit in Missouri is: a bluff located at Piney River Narrows Natural Area where it overlooks the intersection of the Big and Little Piney Rivers. Also, any gravel bar where I can camp.

When I am not volunteering, you can find me: playing with any of my six grandchildren, sightseeing, or hiking..

A New Kids' Magazine



The first magazine will be delivered in February 2010.

To subscribe, go to

<www.mdc

.mo.gov/15287>

or write to *Xplor*,

PO Box 180,

Jefferson City, MO

65102

Volunteer Milestones

Louis Rousselot1250 Hours

Joyce Kastler200 Hours

Jan Miller200 Hours

Harbinger

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Missouri Department of Conservation
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Phone 417/888-4237
Fax: 417/888-4241



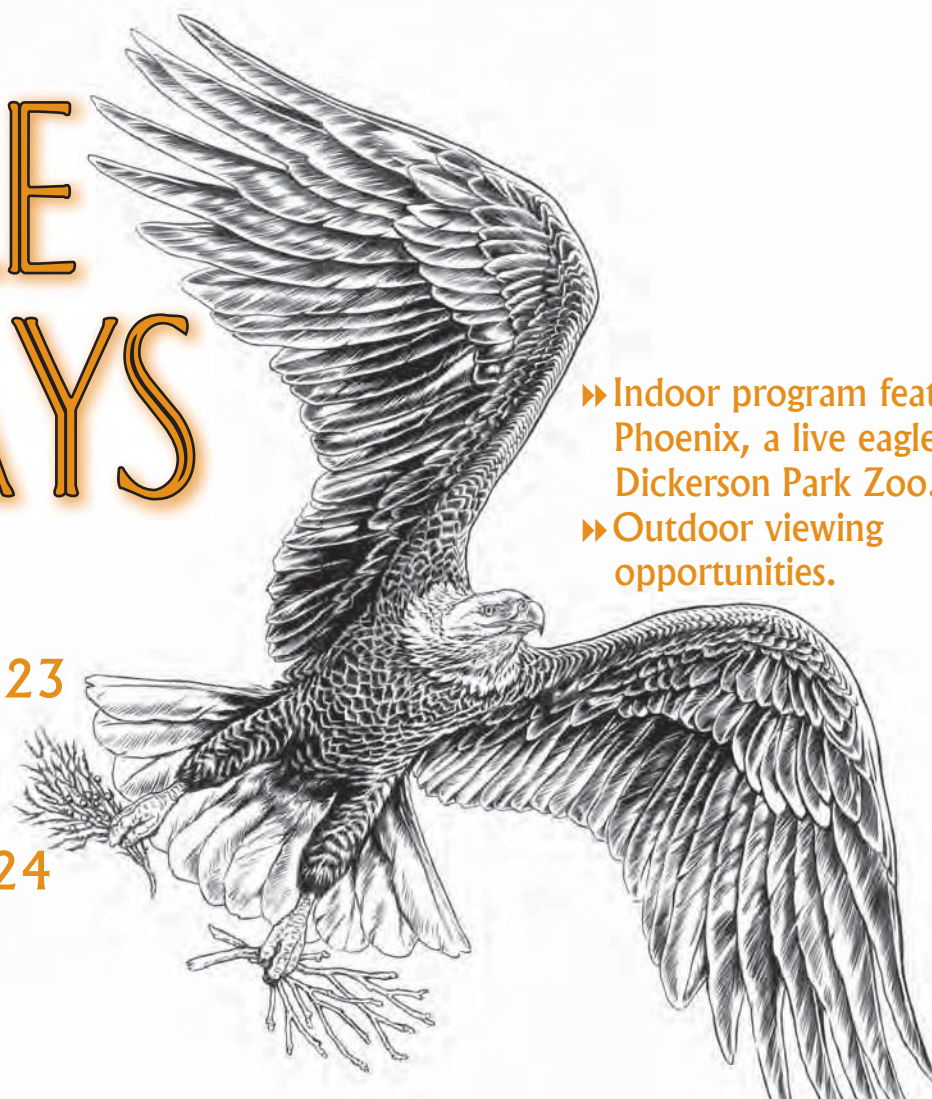
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The nature center building
and area will be closed on
New Year's Day.

EAGLE DAYS

Saturday, January 23
9am–4pm

Sunday, January 24
11am–4pm



- Indoor program featuring Phoenix, a live eagle from Dickerson Park Zoo.
- Outdoor viewing opportunities.

January Events

SPRINGFIELD CONSERVATION NATURE CENTER



Call the nature center at 417/888-4237 on or after January 2 to register for January programs requiring registration. If you are unable to attend a program, please call to cancel so that someone on the waiting list may attend.

The nature center building, area, and trails will be closed on Friday, January 1, in observance of New Year's Day.

8 Nature And The Arts The Photography of Noppadol Paothong

Friday, 7–8:30pm

Conservation Department Wildlife Photographer Noppadol Paothong's spectacular images have captivated readers of the *Missouri Conservationist* magazine and others who have seen his work. His photography is a labor of love requiring a deep understanding of the subject matter as well as a strong commitment, determination, persistence, and patience. It also takes years of trial and error and constant research because nature and wildlife photography is a combination of art and science. The result of this effort can be something so amazing that words can barely describe it. Hear firsthand accounts of the stories behind his photos during this *Nature And The Arts* program. Ages 12–adult. *Call today to register.*

9 Hiking Club

Saturday, 8:30am–5pm

Join Volunteer Naturalist Doug Gilliam for a day of exploring. Meet at the nature center and carpool to Swan Creek Territory. Bring a sack lunch and water and wear comfortable hiking shoes. Hike is approximately five miles and of moderate difficulty. Ages 18–adult. Registration required.

Virtual Hunting And Fishing

Saturday, 2–4pm

Attention hunters, anglers, and video game buffs!

Here's your chance to try your hand at virtual hunting and fishing. While a video game can never take the place of a real experience, these simulators are sure to stimulate you to take a trip outdoors. Drop by anytime. Ages 5–adult.

14 Story Time With Ms. Ladybug

Thursday, 11–11:30am

Join Volunteer Naturalist Joyce Tolliver as she reads a nature story and shares activities with your 2–6 year olds. Please, no organized groups. *(Please note that this program will be held on a Thursday this month.)*

16 Conservation TEEN Club Hercules Glade Wilderness Hike

Saturday, 9am–4pm

Have you got cabin fever? Are you tired of being cooped up inside the house? Join us for a winter hike through the Hercules Glade Wilderness. Bring a day pack and rain gear. Wear comfortable hiking boots and layers of clothing to stay warm. Lunch and transportation will be provided. Ages 12–17. Registration required.

Fly-Tying Demonstration

Saturday, 1–4pm

Members of the Missouri Trout Fishermen's Association will be on hand to demonstrate basic fly-tying techniques. Stop by anytime and learn how combinations of feathers, yarn, and thread can imitate insects or other food that will fool a fish. All ages.

17 For Adults Only Fire Making

Sunday, 1–3pm

Spend a cold January afternoon learning the primitive skill of fire making with Volunteer Specialist Don Brink. We will start in the classroom before moving outside where you can try your hand at starting a flame. Dress for the weather. Ages 18–adult. Registration required.

23 Eagles Days

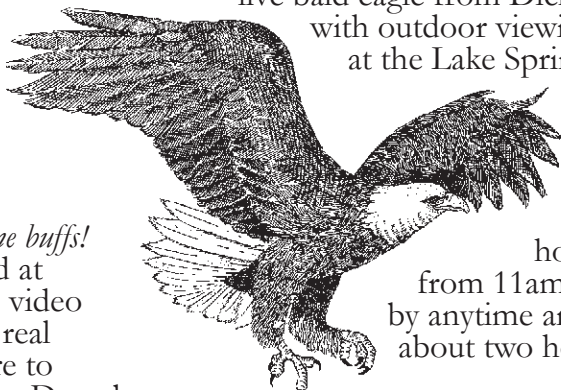
Saturday, 9am–4pm

We're celebrating the annual return of bald eagles to Lake Springfield. This special event combines the indoor presence of Phoenix, a live bald eagle from Dickerson Park Zoo, with outdoor viewing opportunities at the Lake Springfield Boathouse and Marina. An indoor program will be held every hour on the hour from 9am to 3pm. Stop by anytime and plan to spend about two hours. All ages.

24 Eagles Days

Sunday, 11am–4pm

We're celebrating the annual return of bald eagles to Lake Springfield. This special event combines the indoor presence of Phoenix, a live bald eagle from Dickerson Park Zoo, with outdoor viewing opportunities at the Lake Springfield



Boathouse

and Marina.

An indoor

program will

be held every

hour on the hour

from 11am to 3pm. Stop

by anytime and plan to spend

about two hours. All ages.

26 Conservation Kids' Club Duck, Duck, Goose

Tuesday, 6:30–7:45pm

Missouri's wetlands and rivers provide great winter habitat for migrating ducks and geese. Learn how birdwatchers and hunters identify these dabblers and divers and find out about the waterfowl hunting season by attending this program. Ages 7–12. Please, no younger siblings and only one adult per group of kids. Registration required.

28 You Got Game?

Thursday, 7–9pm

Outdoor enthusiasts always have questions about care and usage of nature's bounty and we have answers. Learn how to care for game taken from the field and then prepare it for the table. Taste samples of wild game from fish to venison. Copies of our favorite recipes will be available. Come enjoy a wild game taste-testing treat. Ages 10–adult. Registration required. *Priority will be given to first-time attendees.*

29 Owl Prowl And Evening Stroll

Friday, 6–9pm

Nesting season comes early for owls and they're already hooting in anticipation. The trails will be opened and patrolled, so bring a flashlight and a walking partner because you're on your own. Dickerson Park Zoo docents will offer two indoor programs—one at 6:30pm and one at 7:30pm—to give you a close-up look at Missouri's owls. You'll learn about how these incredible predators have mastered surviving in darkness. All ages.

30 Trees: Selection, Planting, And Pruning

Saturday, 10–11:30am

Join ISA Certified Arborist Kevin Harrel, owner of ArborCare of the Ozarks, LLC, for information that will help your new trees get off to a great start. From selecting the right tree for the right place to proper planting, pruning, and training young trees to avoid problems in the future, this will be an informative and valuable session. Ages 18–adult. Registration required.

Discovery Table: Nature Scrapbooking

Saturday, 10am–1pm

Stop by to visit with Sandy Harrel, Creative Memories Instructor, as she demonstrates how to display the nature photos you have taken at the nature center or on family outings to create lasting memories. See how fast and fun organizing digital photos on your computer and making a digital or traditional scrapbook can be.

Show And Tell: Questions And

Saturday, 11:30am–1pm

Answers

Bring tree samples, photos, or questions to ISA Certified Arborist Kevin Harrel, owner of ArborCare of the Ozarks, LLC, for answers to your questions. This display table will also include unique samples of sapsucker damage, galls, and girdling roots.

LITTLE ACORNS

LITTLE ACORNS programs are for children 3–6 years and are 45-minutes in length. Please limit LITTLE ACORNS programs to one per month. Registration required.

Regal Eagles

Bald eagles are the kings of the sky. They are big, beautiful, and brawny. Come learn what other adaptations make these special birds like royalty.

Friday, January 8, 11am or 1:30pm

Saturday, January 9, 11am

Calling All Owls

What makes owls such great nocturnal hunters? Bring the tots to learn all about the mysterious lives of owls.

Friday, January 15, 11am or 1:30pm

Saturday, January 16, 11am

Videos are shown every Sunday from 2–3pm.

February Events

SPRINGFIELD CONSERVATION NATURE CENTER



Call the nature center at 417/888-4237 on or after February 1 to register for February programs requiring registration. If you are unable to attend a program, please call to cancel so that someone on the waiting list may attend.

5 Native American Storytelling And Evening Stroll

Friday, 6–9pm

Bring the entire family and enjoy a special evening of storytelling and fun as Native American storyteller John Hernandez entertains us with his animated stories in the auditorium at 7pm. Enjoy Native American drumming and singing in the lobby from 8 to 8:30pm. The trails will be opened and patrolled tonight from 6 to 9pm, so take a walk before or after the program. Bring a flashlight and a walking buddy because you're on your own. All ages.

6 For Adults Only Beginner Orienteering

Saturday, 8:30am–12:30pm

Learn the basics of using a compass and topographic maps during the indoor portion of this program and then test your new-found skills with an outdoor exercise at Living Memorial Park. Dress for the weather if you plan to do the outdoor portion. Ages 18–adult. Registration required.

Hiked It . . . Liked It! Weekend Hike

Saturday, 9–11am

Enjoy a volunteer naturalist-guided hike on the trails. All ages.

7 Gearing Up For The Great Backyard Bird Count

Sunday, 1–4pm

Members of the Greater Ozarks Audubon Society will be in the Wildlife Viewing Area to answer questions about backyard birds and the upcoming Great Backyard Bird Count (February 12–15). They will also demonstrate how to enter the data online. All ages.

10 Story Time With Ms. Ladybug

Wednesday, 11–11:30am

Join Volunteer Naturalist Joyce Tolliver as she reads a nature story and shares activities with your 2–6 year olds. Please, no organized groups.

12 The Great Backyard Bird Count

Friday, 9–11am

Stop by and help count birds in the Wildlife Viewing Area with members of the Greater Ozarks Audubon Society. Learn the basics of identification, proper counting techniques, and help count birds to contribute to the nature center's Great Backyard Bird Count tally sheet. All ages.

WildHeart In Concert . . . Bringing The Heart Of The Wild To The Heart Of The Child

Friday, 4–5pm or 7–8pm

Come sing-a-long with Emmy Award winning performers, WildHeart! Plan to paddle into the fun learning squishy songs about wild creatures and their habitats. WildHeart is the Parents' Choice Award winning duo of Jan and George Syrigos, conservation educators and entertainers who have performed at Silver Dollar City, the Missouri Governor's Mansion, and schools throughout the Midwest. Kids can expect to get up and dive into the fun as they learn each original toe-tappin' tune. All ages. Registration required.

13 Hiking Club

Saturday, 8:30am–5pm

Volunteer Naturalist Sandy Vaughn will lead a five-mile hike at Lead Mine Conservation Area. Meet at the nature center and carpool. Bring a sack lunch and water and wear comfortable hiking shoes. Hike is rated moderate to difficult. Ages 18–adult. Registration required.

The Great Backyard Bird Count

Saturday, 9–11am

Stop by and help count birds in the Wildlife Viewing Area with members of the Greater Ozarks Audubon Society. Learn the basics of identification, proper counting techniques, and help count birds to contribute to the nature center's Great Backyard Bird Count tally sheet. All ages.

Backyard Bird BINGO

Saturday, 11am–Noon or 1–2pm

Learn about common backyard birds and how to attract them to your yard while having fun playing BINGO! All ages.

14 Discover Nature Families What's In An Owl Pellet?

Sunday, 2–3:30pm

 *Discover Nature Families programs are designed to help adults and children explore nature and master outdoor skills together.*

Parents, grandparents, and adult mentors, bring your youngster(s) to learn why owls sit atop a long and twisted food chain. Owl pellets provide clues to help unravel that chain. Learn what owl pellets are and then dissect them to identify what's inside. Ages 7–adult. Registration required.

19 Owl Prowl

Friday, 7–8:30pm

Nesting season comes early for owls, and they're already hooting in anticipation. Join us and the folks from Dickerson Park Zoo for a close-up look at live owls. We'll also head outside and try to call wild owls during a guided hike. Bring a flashlight. All ages. Registration required.

20 Conservation TEEN Club Vulture Venture

Saturday, Noon–5pm

Journey with us to Shepherd of the Hills Fish Hatchery in Branson for their annual Vulture Venture event which includes a live vulture program and wild vulture viewing. We will also spend time hiking trails along Lake Taneycomo. Lunch and transportation will be provided. Ages 12–17. Registration required.

GREAT BACKYARD BIRD COUNT FEBRUARY 12-15



By participating in the Great Backyard Bird Count (a joint project of Cornell University Lab of Ornithology and the National Audubon Society) you can help document where birds are and track changes in their numbers compared to previous years, helping scientists paint a picture of the state of birds this winter. You can count birds in your backyard, a local park, or other natural areas on one or all four count days. Stop by the nature center and pick up a packet with data sheets and further information. You may also join the Greater Ozarks Audubon Society members at Lake Springfield to count. They will be at the Lake Springfield Park Boathouse & Marina from 9–11am, Sunday and Monday, February 14–15. Some time will be spent outdoors, so dress for the weather. Warm drinks will be provided. The bird count data will be entered into the national database for the National Great Backyard Bird Count event.

LITTLE ACORNS

LITTLE ACORNS programs are for children 3–6 years and are 45-minutes in length. Please limit **LITTLE ACORNS** programs to one per month. Registration required.

Winter Woodpeckers

Many birds fly south seeking warmer weather in the winter, but not Missouri's wonderful woodpeckers. Fly on in to learn more about these "hardheaded" birds and how to attract them to your yard during the cold winter months.

Friday, February 12, 11am or 1:30pm
Saturday, February 13, 11am

Squirrel Scamper

Squirrels scoot, scurry, caper, and cavort all year long. Come join us to learn just what those critters are up to as they romp around the nature center woods.

Wednesday, February 17, 11am or 1:30pm

Skunk Scurry

There's more to a skunk than its smell. "Sniff out" some amazing skunk facts, learn a pre-spray skunk "dance," and take home a craft that won't "stink."

Friday, February 26, 11am or 1:30pm
Saturday, February 27, 10am

25 Conservation Kids' Club Nature Games

Thursday, 6:30–7:45pm

Hey, kids, are you "game" for a night of friendly competition to test your nature knowledge? Put on your thinking caps and come prepared to play some nature versions of your favorite family games. Show off what you know and learn new facts during this fun-filled evening. *(Please note that this month's meeting is on Thursday evening.)* Ages 7–12. Please, no younger siblings and only one adult per group of kids. Registration required.

26 Nocturnal Animals

Friday, 6:30–8:30pm

Are nocturnal animals frightening or fascinating? Bring the family to shed some light on the elusive creatures of the night. Learn about Missouri's nocturnal animals and their adaptations for living in the dark. Enjoy creating a special nocturnal animal craft, listen to thrilling after-dark stories, and engage your senses on a guided hike on our trails to discover who dwells in the forest after the sun goes down. All ages. Registration required.